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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/814,523 | 03/31/2004 | George Rawa | 285-714UI | 6918 |
| 570 | 7590 | 11/26/2004 | | |
| AKIN GUMP STRAUSS HAUER & FELD L.L.P. ONE COMMERCE SQUARE 2005 MARKET STREET, SUITE 2200 PHILADELPHIA, PA 19103-7013 | | | EXAMINER | |
| | | | COLE, ELIZABETH M | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1771 | |

DATE MAILED: 11/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | |
|------------------------------|--------------------------------------|-------------------------|
| Office Action Summary | Application No. | Applicant(s) |
| | 10/814,523 | RAWA ET AL. |
| | Examiner Elizabeth M. Cole | Art Unit 1771 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-30 is/are pending in the application.
 - 4a) Of the above claim(s) 13-26 is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-12, 24-30 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____.
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-12, 27-30, drawn to a composite material, classified in class 442, subclass 179.
 - II. Claims 13-26, drawn to a method of using a composite material, classified in class 156, subclass various.
2. Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case product as claimed can be used as a layer in a molded material which does not comprise a metal layer. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
3. During a telephone conversation with Lynda Calderone on 11/10/04 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-12, 27-30. Affirmation of this election must be made by applicant in replying to this Office action. Claims 13-26 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.
4. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one

or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-12, 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vogelesang et al, U.S. Patent No. 4,992,323 in view of Chellis et al, U.S. Patent No. 5,126,112 and Segal, U.S. Patent No. 4,291,084. Vogelesang discloses a laminate comprising a metal layer which is bonded to a thermoplastic layer. The thermoplastic layer may comprise PEEK and may further comprise a fibrous reinforcement such as a continuous filaments. The fibers may be carbon fibers. See col. 2, lines 4-62.

Vogelesang et al differs from the claimed invention because Vogelesang et al does not disclose employing woven fibrous reinforcements and because Vogelesang et al does not teach that the coefficient of thermal expansion of the resin layer should match that of the metal layer. With regard to the type of fibrous reinforcement employed, Chellis teaches that both woven and nonwoven fibrous reinforcements may be used to form composite materials comprising fiber reinforced resin layers and metal layers. See col. 7, lines 3-5. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed a woven or nonwoven fabric as taught by Chellis as the

fibrous reinforcement in Vogelesang et al, motivated by the teaching of Chellis that such fabrics are suitable for use as the fibrous reinforcement in metal/resin laminates. With regard to the particularly claimed weave patterns, it would have been obvious to have selected from known weave patterns such as plain weave, satin weave, twill weave, etc. to form the woven fabric reinforcement. It further would have been obvious to have selected the particular amount of fiber employed in the resin layer through the process of routine experimentation in order to provide a material having the desired strength and stability. With regard to the coefficient of thermal expansion of the two layers, Segal teaches at col. 8, lines 49-55, that when forming a metal/composite laminate that the coefficient of thermal expansion of both the metal and composite sheet should be the same. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to select the coefficient of thermal expansion of the composite sheet of Vogelesang so that it matched the coefficient of thermal expansion of the metal layer. One of ordinary skill in the art at the time the invention was made would have been motivated to match the thermal expansion coefficient of the two layers by the teaching of Segal that this produces the best bonded material.

7. The fax copy of the IDS and the non-patent references which was sent by Applicant is appreciated. All the references were considered. A copy of the 1449 is not included with this action since the official copy is not yet in the file. It will be returned with the next office action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth M. Cole whose telephone number is (571)

272-1475. The examiner may be reached between 6:30 AM and 6:00 PM Monday through Wednesday, and 6:30 AM and 2 PM on Thursday.

Mr. Terrel Morris, the examiner's supervisor, may be reached at (571) 272-1478.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

The fax number for all official faxes is (703) 872-9306.


Elizabeth M. Cole
Primary Examiner
Art Unit 1771

e.m.c